RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/530,792A
Source: IFW16
Date Processed by STIC: 11/10/05

ENTERED

IFW16

RAW SEQUENCE LISTING DATE: 11/10/2005
PATENT APPLICATION: **US/10/530,792A** TIME: 12:29:56

Input Set : **D:\3589.1015-008 Seq List.txt**
Output Set: **N:\CRF4\11102005\J530792A.raw**

```
    4 <110> APPLICANT: Croce, Carlo M.
    5       Calin, George A.
    7 <120> TITLE OF INVENTION: NOVEL TUMOR SUPPRESSOR GENE AND
    8       COMPOSITIONS AND METHODS FOR MAKING AND USING THE SAME
   11 <130> FILE REFERENCE: 3589.1015-008
   13 <140> CURRENT APPLICATION NUMBER: 10/530,792A
-> 14 <141> CURRENT FILING DATE: 2005-05-13
   16 <150> PRIOR APPLICATION NUMBER: PCT/US2003/032270
   17 <151> PRIOR FILING DATE: 2003-10-10
   19 <150> PRIOR APPLICATION NUMBER: 60/417,842
   20 <151> PRIOR FILING DATE: 2002-10-11
   22 <160> NUMBER OF SEQ ID NOS: 17
   24 <170> SOFTWARE: FastSEQ for Windows Version 4.0
   26 <210> SEQ ID NO: 1
   27 <211> LENGTH: 3791
   28 <212> TYPE: DNA
   29 <213> ORGANISM: Homo sapiens
   31 <400> SEQUENCE: 1
   32 cacccaagtc tgagttgcta aaaaatggag ctgtcactgg gccttgctct gccaggacct 60
   33 gcagagccgg ggacctctct gtggcaagcc cagcaagatg actgctctga ggcgccctag 120
   34 ggctgaggga ggggccgtga caccagcccc gccccccagc cacctgggaa aaggaagcac 180
   35 aaaaaggaga agcagcaacg gctgctctgc ttccttccca tctcgctctt gggtcatgcc 240
   36 tggccagcag aaagcagctc cataggggag gagagccacg caggatctca cagctgcagt 300
   37 ctaatagtaa cacagaggat tcagcagtgg ccaccatggg ttctgtgaat tccagaggtc 360
   38 acaaggcgga agcccaggtg gtgatgatgg gcctggactc ggcgggcaag accacgctcc 420
   39 tttacaagct gaagggccac cagctggtgg agaccctgcc cactgttggt ttcaacgtgg 480
   40 agcctctgaa agctcctggg cacgtgtcac tgactctctg ggacgttggg gggcaggccc 540
   41 cgctcagagc cagctggaag gactatctgg aaggcacaga tatcctcgtg tacgtgctgg 600
   42 acagcacaga tgaagcccgc ttacccgagt cggcggctga gctcacagaa gtcctgaacg 660
   43 accccaacat ggctggcgtc cccttcttgg tgctggccaa caagcaggag gcacctgatg 720
   44 cacttccgct gcttaagatc agaaacaggc tgagtctaga gagattccag gaccactgct 780
   45 gggagctccg gggctgcagt gccctcactg gggaggggct gcccgaggcc ctgcagagcc 840
   46 tgtggagcct cctgaaatct cgcagctgca tgtgtctgca ggcgagagcc catggggctg 900
   47 agcgcggaga cagcaagaga tcttgatcca gacagagcag catatctttg ctcatacaaa 960
   48 ctagaagaac cagctgatcc ttgagaaatt tacgcttagt ctatcaaaca agaaatgctg 1020
   49 gcttggcccg gtggctcatg cctgtaatcc cagcactgtg ggagaccacg gtgggggaat 1080
   50 cccttgagcc caggagttgg agagcaacat cacaacaccc catttctact aataatcaaa 1140
   51 aaattggccg ggcatggtgg catgtgcctg tagtcccagc tacttgggag gctgaggcag 1200
   52 gagaatcgct tgagcccaag aggtagaggt tgcagtgagc caagatcgcg ccactgcact 1260
   53 ccagtctggg caacagagtg agaccctgtc tcaataataa taataataat aatgatgata 1320
   54 ctctaagaaa aaaatctcaa catacttcat ttaatagctc gttaccaagt gtgaatgaag 1380
   55 caatatgtca taatagagta gccactggtt gcataataat agagacctaa attctcaaat 1440
   56 agggaaagag gttttaaaat caaatttgag gccaggtgca gtggctcatg ggcggaggag 1500
```

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```
57 ggcagattac ttgaggctag gagttcaaga ccagcctggc caacatggtg aaaccccatc 1560
58 tctactgaaa atacaaaaat taggcatagt ggtgcacgcc tgcagtccca gctactcagg 1620
59 aggttgaggc agaagaatcg cttgaaccca ggaagtggag gttgcagtga gccgagattg 1680
60 tgctgctgca ctccagcctg ggtgaaaaag acaggctgtg tctccaaaaa gaaaaaaaaa 1740
61 agtcaaattc aaatatcatc tggacatgtc acaatggatc gcggatcctt atgagtgatt 1800
62 ttccccagtg gcccctgggg atgtgccact gtcactcaga agggcaagct aggcagggcc 1860
63 catccaacag caggggtctg caggttagac gttccctgcc ctgggacgct cacccctggg 1920
64 caagaggctg gaagttcaca ccatccaaaa tttatccttg ttttttttct gatgctaatt 1980
65 agcctctccc gattttatga catcttgtgt tgatcttttt caaaaactca ttttcttttt 2040
66 tttccttctc ttttctcctt cttgtagcac atatctttcg ttaaagatca gatcaataaa 2100
67 atattttatt tattcattaa tttaacaaaa aaaacagagc atttagtttg tggcaaaaac 2160
68 actgagcttt cgaatatgaa tcatgtgctt taggtgggag ttgtgaattc tgaagataca 2220
69 gatgacagtg acgaatgcct tctgtctcat gattgacagg gaaaaggaag gttgaccata 2280
70 gcatcctaga aggctcatca ggtgatcatt acctagcatc catgaagcac ctgaaattat 2340
71 ttgcaaaatg ttacgctttg gaccattttt ccggggaagg agatccagaa ctttttacca 2400
72 gattttcaaa gacatctgtg actcccaaaa gttaacaatc actgatgtgg ttgttgtatc 2460
73 cctcatccaa ccccagaaca ctttctgtaa tctgagtttt ttaatggcaa gtggcctata 2520
74 tttagcacct gttctcatgt taaacagctc tgaatgttag atattctttc ttatcctgga 2580
75 ctggttctct ctatctctgg agtaatgcag tataaattgg ccatcagtac cctcctaaaa 2640
76 tctgagatct gccaggcccc tcttctaaca ccaggttagg catgcttggt tatttccagt 2700
77 acttgtgagt caacatgttt caagacgctg tgttagacac tagggatgca aagatgaatg 2760
78 agataaggcc tcaggcctca tggaaggtga gacagtaaag acattactcc cataaaaatg 2820
79 tgaggagaga gactcagttc agcaactgtt tattctgttt attgagcact tacttggacc 2880
80 aagcactgtg gtcttggtgt tttacataga ctgtctctaa ttctcacaac tctgcaaaat 2940
81 atatatattc ccattttata aaactacaaa ctgaggctca gagaaggtgt gacctcttgt 3000
82 tgcttgaggc acagagttat aaagtaacat atctggaatt tgaaatgaga tctgtttagg 3060
83 gctaatgctg cattttttcta caacatcatg cctctagaag gtttaagcta ggtaggcttt 3120
84 cagccagcag acatgatggg gagagccttc taataagagg gaagagactg cttggaagca 3180
85 tgaagggagg tgtaagaaag ataagtaagt cagtgtactt gcaacagagg cttgggatga 3240
86 agggtgggtg aagttgacat cacgatagaa aacaaaactg gaatgggagt ttaggtccaa 3300
87 tttgggcaag gttgtttgaa tttcaataat caggggtttg ggtcaaggaa gaaaaatcat 3360
88 gggacttgcc atttaggagg ataattttgt ggtagtgtgg aggtgaaata aagagaaaag 3420
89 ggaaccttgg agctgggaag gcaggaaacc ggctagatga ccatcacaca gcaaaggagg 3480
90 gagtggaaga gagatgagaa aattgagagc tattattaag aaaaacagtt gagagaggaa 3540
91 gaatttgaag agggctcaag attttgagtc cacatgacag aaggactgga atgccatgaa 3600
92 ctggagaagg tgagcgctga agaaccagga tgggacgggg ctggaacagc tgggttcagc 3660
93 ttttgcaggg tgggtacgtg tttggttata gctgctttca gattgttcca ttatctgtac 3720
94 tcccaacaac cctgccggat atatttgttg gctttcactc aaaaaaaaaa aaaaaaaaaa 3780
95 aaaaaaaaaa a                                                      3791
97 <210> SEQ ID NO: 2
98 <211> LENGTH: 196
99 <212> TYPE: PRT
100 <213> ORGANISM: Homo sapiens
102 <400> SEQUENCE: 2
103 Met Gly Ser Val Asn Ser Arg Gly His Lys Ala Glu Ala Gln Val Val
104  1               5                  10                  15
105 Met Met Gly Leu Asp Ser Ala Gly Lys Thr Thr Leu Leu Tyr Lys Leu
106             20                  25                  30
107 Lys Gly His Gln Leu Val Glu Thr Leu Pro Thr Val Gly Phe Asn Val
```

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PATENT APPLICATION: US/10/530,792A TIME: 12:29:56

Input Set : D:\3589.1015-008 Seq List.txt
Output Set: N:\CRF4\11102005\J530792A.raw

```
108         35                  40                  45
109 Glu Pro Leu Lys Ala Pro Gly His Val Ser Leu Thr Leu Trp Asp Val
110     50                  55                  60
111 Gly Gly Gln Ala Pro Leu Arg Ala Ser Trp Lys Asp Tyr Leu Glu Gly
112 65                  70                  75                  80
113 Thr Asp Ile Leu Val Tyr Val Leu Asp Ser Thr Asp Glu Ala Arg Leu
114                 85                  90                  95
115 Pro Glu Ser Ala Ala Glu Leu Thr Glu Val Leu Asn Asp Pro Asn Met
116             100                 105                 110
117 Ala Gly Val Pro Phe Leu Val Leu Ala Asn Lys Gln Glu Ala Pro Asp
118         115                 120                 125
119 Ala Leu Pro Leu Leu Lys Ile Arg Asn Arg Leu Ser Leu Glu Arg Phe
120     130                 135                 140
121 Gln Asp His Cys Trp Glu Leu Arg Gly Cys Ser Ala Leu Thr Gly Glu
122 145                 150                 155                 160
123 Gly Leu Pro Glu Ala Leu Gln Ser Leu Trp Ser Leu Leu Lys Ser Arg
124                 165                 170                 175
125 Ser Cys Met Cys Leu Gln Ala Arg Ala His Gly Ala Glu Arg Gly Asp
126             180                 185                 190
127 Ser Lys Arg Ser
128         195
131 <210> SEQ ID NO: 3
132 <211> LENGTH: 24
133 <212> TYPE: RNA
134 <213> ORGANISM: Artificial Sequence
136 <220> FEATURE:
137 <223> OTHER INFORMATION: Ribozyme
139 <400> SEQUENCE: 3
140 cugaugaguc cgcgaggacg aaac                                        24
142 <210> SEQ ID NO: 4
143 <211> LENGTH: 26
144 <212> TYPE: RNA
145 <213> ORGANISM: Artificial Sequence
147 <220> FEATURE:
148 <223> OTHER INFORMATION: Ribozyme
-> 150 <221> NAME/KEY: misc_feature
151 <222> LOCATION: 1
152 <223> OTHER INFORMATION: n is complementary to the target mRNA flanking the
153       5' end of the structural domain
-> 155 <221> misc_feature
156 <222> LOCATION: 26
157 <223> OTHER INFORMATION: n is complementary to the target mRNA flanking the
158       3' end of the structural domain.
-> 160 <400> 4
-> 161 ncugaugagu ccgcgaggac gaaacn                                   26
163 <210> SEQ ID NO: 5
164 <211> LENGTH: 25
165 <212> TYPE: DNA
166 <213> ORGANISM: Artificial Sequence
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RAW SEQUENCE LISTING DATE: 11/10/2005
PATENT APPLICATION: US/10/530,792A TIME: 12:29:56

Input Set : D:\3589.1015-008 Seq List.txt
Output Set: N:\CRF4\11102005\J530792A.raw

168 <220> FEATURE:
169 <223> OTHER INFORMATION: Oligonucleotide primer
171 <400> SEQUENCE: 5
172 ccatgggttc tgtgaattcc agagg 25
174 <210> SEQ ID NO: 6
175 <211> LENGTH: 25
176 <212> TYPE: DNA
177 <213> ORGANISM: Artificial Sequence
179 <220> FEATURE:
180 <223> OTHER INFORMATION: Oligonucleotide primer
182 <400> SEQUENCE: 6
183 cagtggtcct ggaatctctc tagac 25
185 <210> SEQ ID NO: 7
186 <211> LENGTH: 24
187 <212> TYPE: DNA
188 <213> ORGANISM: Artificial Sequence
190 <220> FEATURE:
191 <223> OTHER INFORMATION: Oligonucleotide primer
193 <400> SEQUENCE: 7
194 gccagcagaa agcagctcca tagg 24
196 <210> SEQ ID NO: 8
197 <211> LENGTH: 24
198 <212> TYPE: DNA
199 <213> ORGANISM: Artificial Sequence
201 <220> FEATURE:
202 <223> OTHER INFORMATION: Oligonucleotide primer
204 <400> SEQUENCE: 8
205 ttcaggaggc tccacaggct ctgc 24
207 <210> SEQ ID NO: 9
208 <211> LENGTH: 23
209 <212> TYPE: DNA
210 <213> ORGANISM: Artificial Sequence
212 <220> FEATURE:
213 <223> OTHER INFORMATION: Oligonucleotide primer
215 <400> SEQUENCE: 9
216 gaggtatgta ttgaaagaag agg 23
218 <210> SEQ ID NO: 10
219 <211> LENGTH: 23
220 <212> TYPE: DNA
221 <213> ORGANISM: Artificial Sequence
223 <220> FEATURE:
224 <223> OTHER INFORMATION: Oligonucleotide primer
226 <400> SEQUENCE: 10
227 aacaaaaccc aataacaact cca 23
229 <210> SEQ ID NO: 11
230 <211> LENGTH: 21
231 <212> TYPE: DNA
232 <213> ORGANISM: Artificial Sequence
234 <220> FEATURE:

RAW SEQUENCE LISTING DATE: 11/10/2005
PATENT APPLICATION: US/10/530,792A TIME: 12:29:56

Input Set : D:\3589.1015-008 Seq List.txt
Output Set: N:\CRF4\11102005\J530792A.raw

235 <223> OTHER INFORMATION: Oligonucleotide primer
237 <400> SEQUENCE: 11
238 cagaagacag tagctgatgt g 21
240 <210> SEQ ID NO: 12
241 <211> LENGTH: 21
242 <212> TYPE: DNA
243 <213> ORGANISM: Artificial Sequence
245 <220> FEATURE:
246 <223> OTHER INFORMATION: Oligonucleotide primer
248 <400> SEQUENCE: 12
249 gagcaaagat atgctgctct g 21
251 <210> SEQ ID NO: 13
252 <211> LENGTH: 23
253 <212> TYPE: DNA
254 <213> ORGANISM: Artificial Sequence
256 <220> FEATURE:
257 <223> OTHER INFORMATION: Oligonucleotide primer
259 <400> SEQUENCE: 13
260 gctgagtcca gagagattcc agg 23
262 <210> SEQ ID NO: 14
263 <211> LENGTH: 20
264 <212> TYPE: DNA
265 <213> ORGANISM: Artificial Sequence
267 <220> FEATURE:
268 <223> OTHER INFORMATION: Oligonucleotide primer
270 <400> SEQUENCE: 14
271 tctcgcctgc agacacatgc 20
273 <210> SEQ ID NO: 15
274 <211> LENGTH: 17
275 <212> TYPE: DNA
276 <213> ORGANISM: Homo sapiens
278 <400> SEQUENCE: 15
279 agctcccagc agtggtc 17
281 <210> SEQ ID NO: 16
282 <211> LENGTH: 17
283 <212> TYPE: DNA
284 <213> ORGANISM: Homo sapiens
286 <220> FEATURE:
287 <221> NAME/KEY: misc_feature
288 <222> LOCATION: 7, 11
289 <223> OTHER INFORMATION: n = A,T,C or G
291 <400> SEQUENCE: 16
-> 292 **agctccnagc ngtggtc** **17**
294 <210> SEQ ID NO: 17
295 <211> LENGTH: 17
296 <212> TYPE: DNA
297 <213> ORGANISM: Homo sapiens
299 <400> SEQUENCE: 17
300 agctcctagc agtggtc 17

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 11/10/2005
PATENT APPLICATION: **US/10/530,792A** TIME: 12:29:57

Input Set : **D:\3589.1015-008 Seq List.txt**
Output Set: **N:\CRF4\11102005\J530792A.raw**

ease Note:
e of n and/or Xaa have been detected in the Sequence Listing. Please review the quence Listing to ensure that a corresponding explanation is presented in the <220> <223> fields of each sequence which presents at least one n or Xaa.

q#:4; N Pos. 1,26
q#:16; N Pos. 7,11

VERIFICATION SUMMARY DATE: 11/10/2005
PATENT APPLICATION: **US/10/530,792A** TIME: 12:29:57

Input Set : **D:\3589.1015-008 Seq List.txt**
Output Set: **N:\CRF4\11102005\J530792A.raw**

L4 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L50 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L55 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
L60 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
L61 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0